

REMARKS

Claims 1, 2, 5-7, 9, 10, 13 and 14 stand rejected under 35 U.S.C. §103 as being unpatentable over Applicants' Prior Art Figures 1-6 in view of United States Patent No. 5,910,829 to Shimada et al. and further in view of United States Patent Application Publication No. 2005/0083471 to Ono et al. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the cited references fail to disclose or suggest all of the claimed features. More specifically, the cited references fail to disclose or suggest a liquid crystal display panel in which the frame area comprises, *inter alia*, first and second electrodes that are connected to a common voltage, as defined in independent Claim 1.

One example of an embodiment of the invention of Claim 1 is shown in Applicants' Figure 9, which includes a first electrode 818 and a second electrode 814', where the second electrode is located in the frame area 904. As recited in Claim 1, the first and second electrodes are connected to a common voltage. Since the display panel of Claim 1 is defined as a normally-black liquid crystal panel, the frame area will appear black when the voltage difference between the first and second electrodes is kept below a certain threshold value, such as when no voltage is applied or when both the first and second electrodes are connected to a common voltage. Thus, in the present invention of Claim 1, the frame area is maintained in a permanent black state because the first and second electrodes are connected to a common voltage in this normally-black liquid crystal panel. Further, light leakage in the

frame area is also suppressed by the placement of a plurality of color filters, of at least two different colors, in the frame area, such as filters 806' of Applicants' Figure 9.

In contrast, Applicants' Prior Art Figures lack the claimed first and second electrodes being "connected to a common voltage," as correctly acknowledged by the Examiner. Accordingly, the Examiner relied upon paragraph [0204] of the Ono et al. reference for this feature. However, paragraph [0204] only discloses that the conductive layer functions as a black matrix in a normally-black liquid crystal in a state in which an electric field is not applied. Thus, there is no disclosure or suggestion of the first and second electrodes being connected to a common voltage, which, in the invention of Claim 1, creates a permanent black representation. Nor is there any disclosure or suggestion that such a configuration, or any similar configuration that functions as a substitute for a black matrix, is used in the frame area. Instead of relating to the frame area, the disclosure in the Ono et al. reference relates to a substitute for the black matrix layer located in the display area.

In response to the previous arguments, the Examiner asserted that having the first and second electrodes connected to a common voltage was known in the art (without citing support for this proposition), and that achieving normally black in either the display area or the frame area "would not be a problem" to one of ordinary skill in the art. See October 6, 2006 Final Office Action, page 6, lines 13-15. However, Applicants respectfully submit that the Examiner is relying upon impermissible hindsight. Further, Applicants also assert that the Examiner's argument merely amounts to an assertion that since the claimed

invention was within the capabilities of one of ordinary skill in the art, the invention must be obvious. However, as stated in *Ex parte Levengood*, 28 USPQ2d, 1300, 1301, (Bd. App. Int. 1993), “[the examiner’s assertion] that one of ordinary skill in the relevant art would have been able to arrive at appellant’s invention because he had the necessary skills to carry out the requisite process steps . . . is an inappropriate standard for obviousness.” Moreover, the Examiner “cannot establish obviousness by locating references which describe various aspects of a patent applicant’s invention without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done.” *Levengood*, 18 USPQ2d at 1302. In the instant case, the Examiner has not even located references for all of the features at issue (such as: (a) being connected to a common voltage; and (b) being in the frame area, as opposed to the display area). Thus, the case for withdrawing the rejection is even stronger than in *Levengood*. Accordingly, for at least these reasons, Applicants respectfully request the withdrawal of this §103 rejection of Claims 1, 2, 5-7, 9, 10, 13 and 14.

Further, Applicants would also like to point out that paragraph [0204] of Ono et al. does not disclose or suggest a device in which the frame area includes first and second electrodes that are connected to a common voltage, as recited in Applicants’ Claim 1. It should be noted that paragraph [0204] of Ono et al., when read in the context of paragraphs [0202] and [0203], merely discusses eliminating the black matrix BM provided in the display area so as to cover the TFT (see cover page diagram of Ono et al.) with the construction of

Figure 28. More specifically, paragraph [0202] reads as follows: “An electric field (a lateral electric field which has a component parallel to a transparent substrate for controlling the light transmissivity of liquid crystal can be generated between the conductive layer which functions as the counter electrode CT and the pixel electrode PX and cannot be generated at portions other than these portions.” Paragraph [0203] reads as follows: “Accordingly, as shown in FIG. 28, it is unnecessary to form the black matrix layer on the transparent substrate SUB2 side so that it is possible to obtain an advantageous effect that man hours for fabrication can be decreased.” Thus, this portion of the Ono et al. reference is not related to the frame area, but is instead related to the display area. Additionally, the construction of paragraphs [0202] – [0204] does not involve connecting the counter electrode CT and the pixel electrode PX to a common voltage. If such a connection to a common voltage were to be made, images would not be able to be represented, as previously discussed on pages 7-8 of Amendment B. Accordingly, since Ono et al. and the other cited references combined do not disclose or suggest the present invention, Applicants respectfully request the withdrawal of this rejection of independent Claim 1 and associated dependent Claims 2, 5-7, 9, 10, 13 and 14.

In addition, in order to further distinguish the claimed invention from the cited references, especially Ono et al., Applicants have amended Claim 1 to recite that the first electrode is provided on the first substrate, and the second electrode is provided on the second substrate, where the second substrate counters the first substrate. The Ono et al.

reference relates to an IPS (in-plane switching) device in which the first and second electrodes are formed on the same substrate. In contrast, amended independent Claim 1 recites that the first electrode is provided on the first substrate, the second electrode is provided on the second substrate, the second substrate counters the first substrate, and the second electrode counters the first electrode across a liquid crystal layer. These features eliminate the possibility of Claim 1 reading on an IPS construction, such as in Ono et al. Thus, for this reason also, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claims 2, 5-7, 9, 10, 13 and 14.

Claim 8 stands rejected under 35 U.S.C. §103 as being unpatentable over Applicants' Prior Art Figures 1-6 in view of Shimada et al. and Ono et al. and further in view of United States Patent No. 6,348,958 to Matsuoka et al. Applicants respectfully traverse this rejection.

Claim 8 depends from independent Claim 1, and therefore includes all of the features of Claim 1, plus additional features. Accordingly, Applicants respectfully request that this §103 rejection of dependent Claim 8 be withdrawn considering the above remarks directed to independent Claim 1, and also because the Matsouka et al. reference does not remedy the deficiencies discussed above.

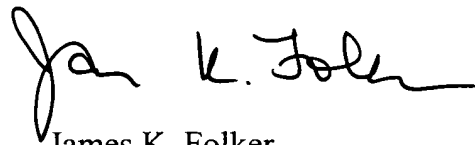
For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. Should the Examiner be of the opinion that a telephone conference

would aid in the prosecution of the application, or that outstanding issues exist, the Examiner is invited to contact the undersigned.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By

A handwritten signature in black ink, appearing to read "James K. Folker", written over a horizontal line.

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January 8, 2007

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